Complete College Oklahoma City Community College

Lean Sigma Black Belt Program

What is Lean Sigma?

- Lean is the process improvement methodology that reduces waste and increases efficiency of processes.
- Six Sigma focuses on reducing the errors in processes in order to eliminate “re-work” or having to redo a process.
- Lean Sigma can be applied to any industry and to any process. The goal is to create a efficient and sustainable process.

Lean Sigma - DMAIC

- **D** – Define
- **M** – Measure
- **A** - Analyze
- **I** – Improve
- **C** - Control

DMAIC is critical to the success of a process improvement project because it defines current state of a process and provides “real” data that is utilized to refine and modify a process.

Now Introducing OCCC's Lean Sigma ***Black Belts***

- Zach Sumner and Jonah McPhaul were selected to participate in the Lean Sigma Program under the Complete College OCCC grant.
- They were each paired with a department within OCCC:
  - Zach Sumner – Purchasing Department
  - Jonah McPhaul – Student Life

Project Sponsors

- Special Thanks to Lori Walker and Erin Logan
  - For allowing the students to work with both the Purchasing and Student Life teams
  - A quality lean sigma project is only as good as the data it has access to and both Lori and Erin were invaluable resources throughout this process

Student Clubs and Organizations Process Improvement

Erin Logan, Team Leader

Jonah McPhaul, Facilitator

June 18, 2014

Project Team Leader: Karlen Grayson
Project Manager: Erin Logan
Facilitator: Jonah McPhaul
Project Coach: Robert Peterson

Projected Savings: $312.35
Department: Office of Student Life Services
Start Date: August 2013
Target Completion Date: May 2014

Problem Statement:

- Event creation is time consuming
- Excessive paper is being printed
- Over 400 pages of paper are wasted per month
- No feedback tool is in place to measure the success of events and activities
- Hardcopy forms delay clubs' & organizations' meeting deadline requirements

Goal Statement:

- Reduce events printed by 5 pages
- Reduce wasted paper from 400 to zero
- Update forms submission application software
- Design webpages for clubs & organizations
- Implement feedback mechanism on clubs' & orgs' webpages
- Make all hardcopy forms electronic submission ready

Customers and Suppliers Involved:

- OSLS staff, sponsors, club & organization members, and students
- John Richardson Web Supervisor PR/Marketing Department
- 3rd party vendors, application and content providers to OCCC clubs & organizations

Process Metrics:

Process Time	BL	Goal	BIC
Events	2.5 hrs. avg.	< 30 min	
Pages Printed	6 Pages	< 2	
Excess Paper Per Month	400 Pages	< 1	
No Feedback	Email	Webpage Tools	

Key Deliverables:

- Create a high level view of the process flow waste
- Identify all process flow bottlenecks and root causes
- Gather, measure and summarize all data collected
- Refine and/or implement solutions to overcome the impact of root causes
- Prepare a Control Plan or Process Management Plan document to ensure changed methods are sustained

Project In Scope:

- Modify and update forms application software
- Design webpage with real-time feedback tools
- Manage webpage content on OCCC server

Project Out of Scope:

- 3rd party vendors timely updates of application software
- Projects from OCCC President
- 3rd party vendor process handling

Business Case:

Office of Student Life Services (OSLS) has one employee to manage an average of 720 events per year and 2160 events over a 3 year period. The 3rd party application system that is used for club members to request an event prints out five excess pages of paper per event. This creates over 400 wasted pages of paper per month and processing is very time consuming

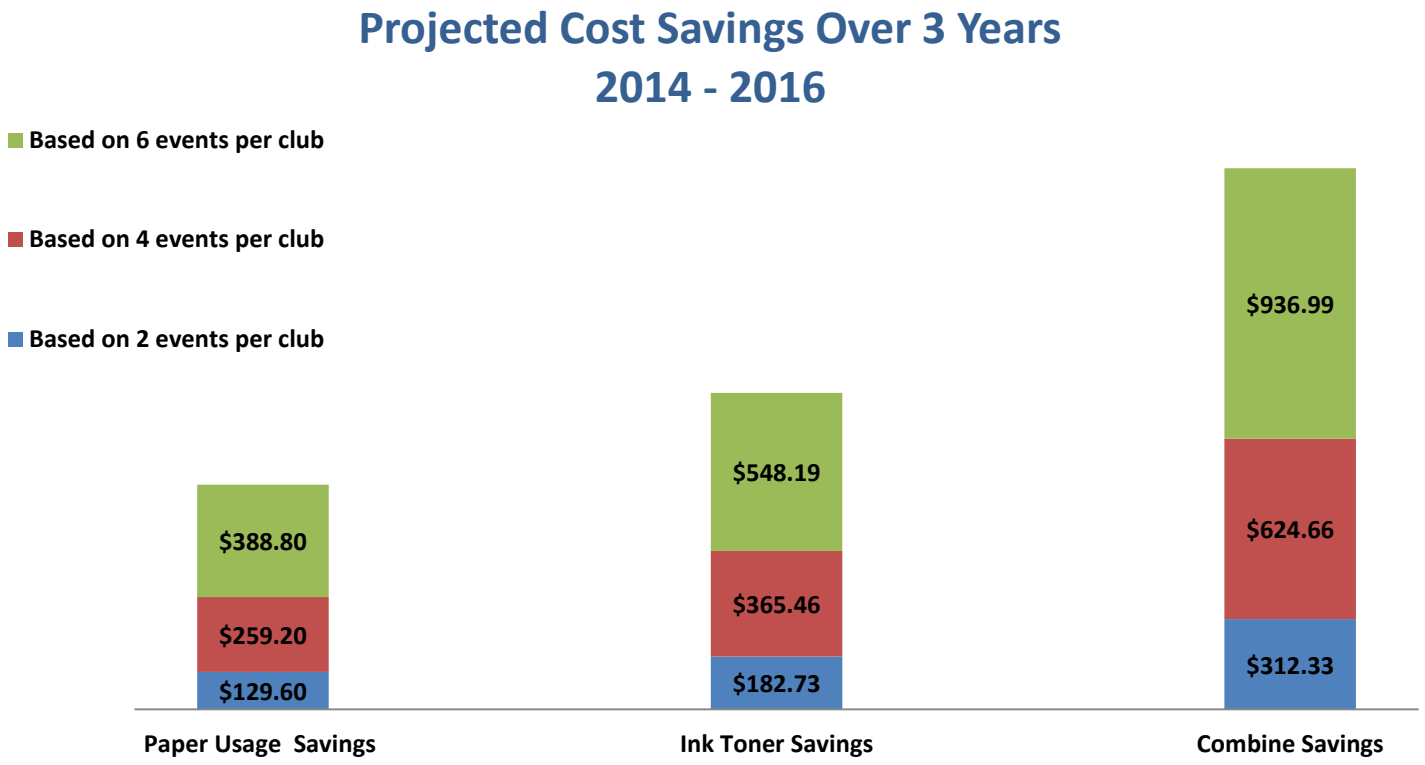
Projected Cost/Expenses:

There are no expected financial cost because all systems and staff currently available have the sufficient skills and resources to bring about the necessary improvements

Cost Savings Analysis

Cost Savings Analysis

determines if the cost of the project is worthwhile



OSLS - Summary

The OSLS has not accumulated any financial obligations. Cost have been kept to a zero balance

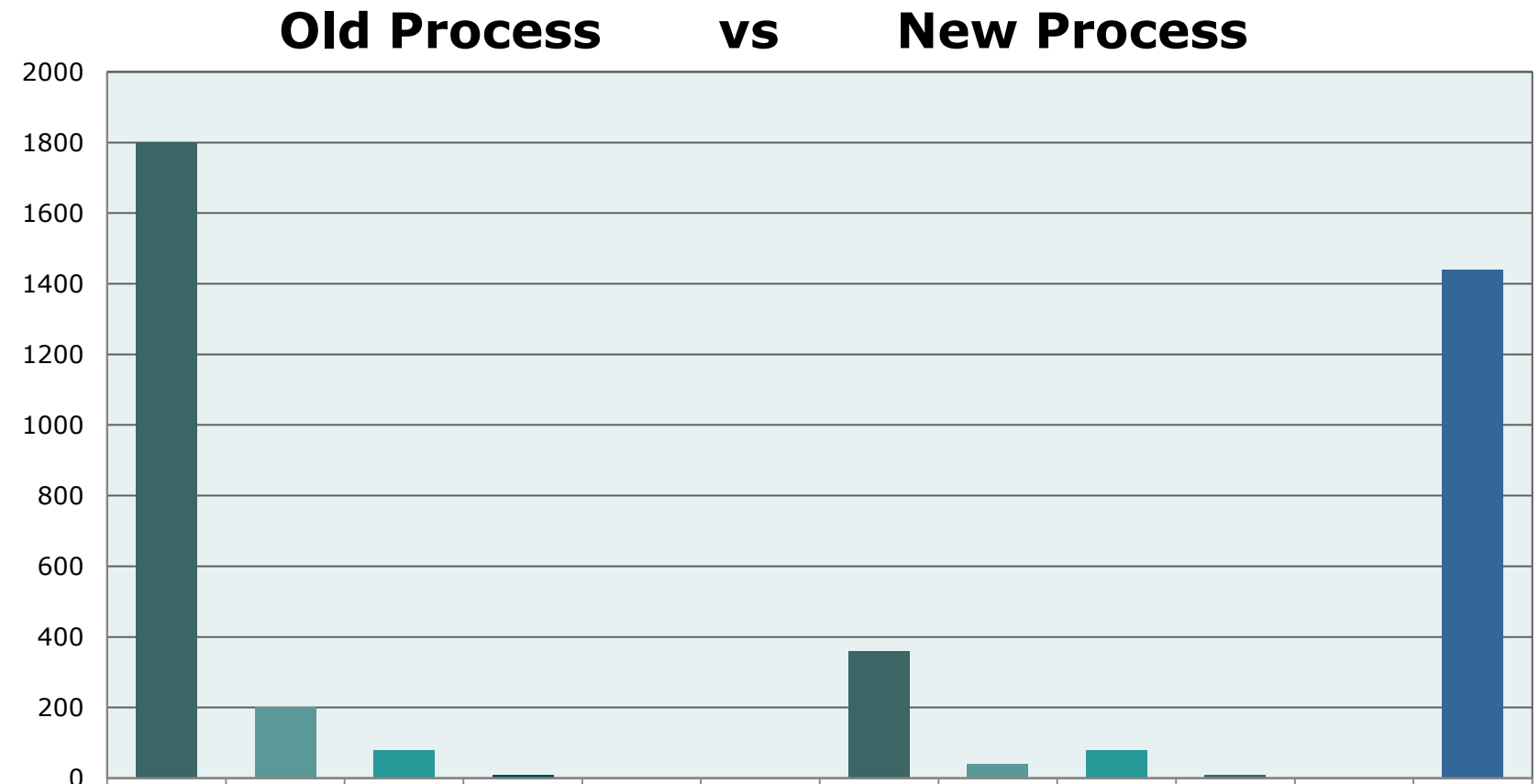
In doing so, the OSLS has begun to save OCCC's procurement department an estimated average paper cost of $43.20 and an average toner cost of $60.91 combined into a yearly savings of $104.11

For the years 2014, 2015, and 2016 projected totals show a savings of $312.33 collectively based on 2 events per month per club

* *Savings increase significantly when all club events are measured entirely*

Cost Avoidance

shows how restructuring a process can create available time

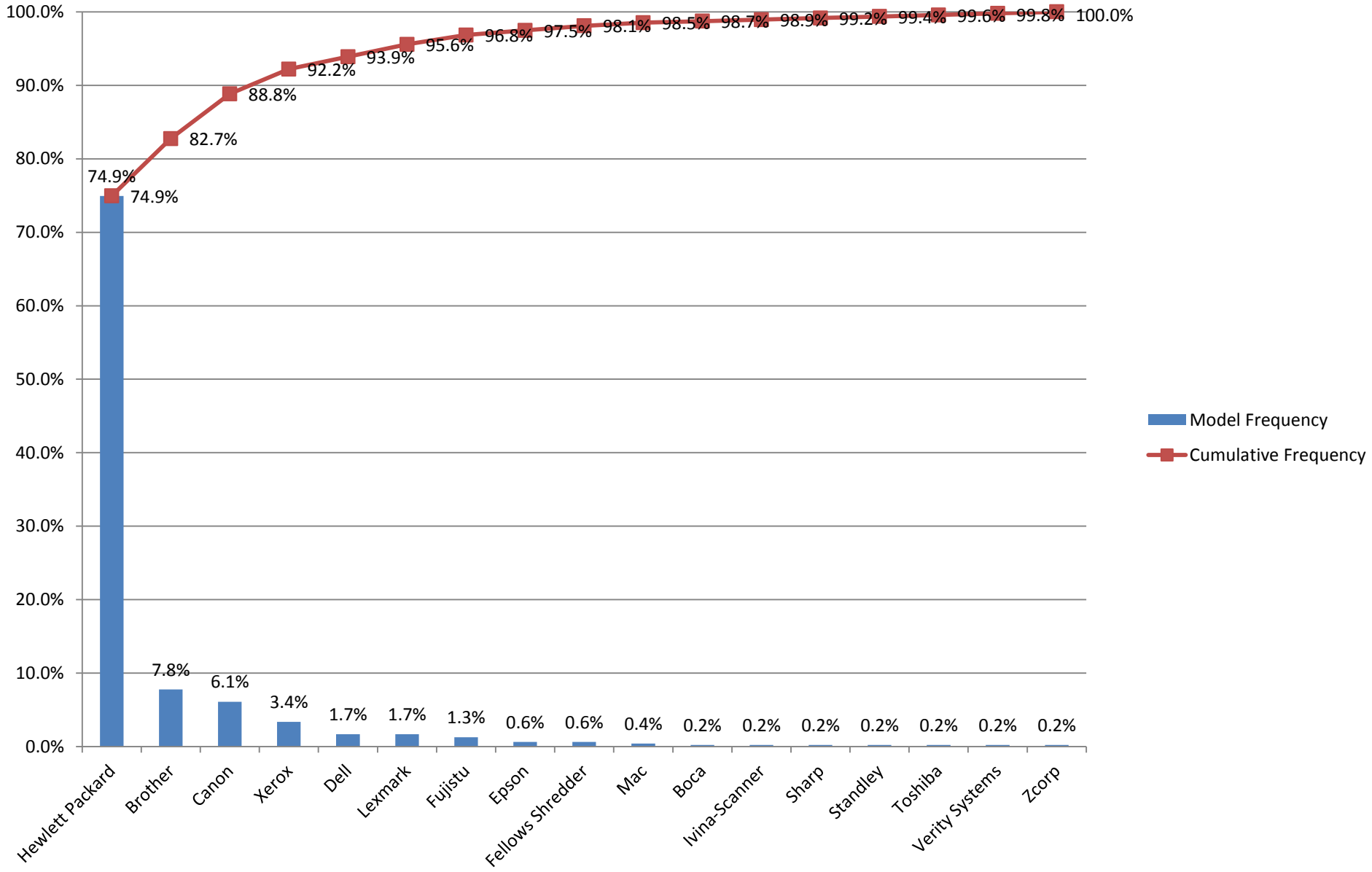


	Event Process Hours Per Year	Event Hours Per Month	Events Per Month	Total Months Per Year	Event Process Time		Event Process Hours Per Year	Event Hours Per Month	Events Per Month	Total Months Per Year	Event Process Time	Available Staff Time
Series1	1800	200	80	9	2.5		360	40	80	9	0.5	1440

PRINTER STANDARDIZATION PROJECT

Lori Walker, Team Leader
Zach Sumner, Facilitator
June 18, 2013

Breakdown of Printer Models



KPIV/KPOV

Process being analyzed	Key process input variables	Key process output variables
Cost of toner and printer maintenance	A diversity of models of printers. Too many different printers. A just in case system for toner.	Cost for toner is high
	A diversity of models of printers. Too comfortable with current vendors.	Cost for maintenance is high
	Too easy to order another printer. Too comfortable spending taxpayer money.	More maintenance, power usage, IT support time, etc.

Root Cause Summary

- Lack of training / general knowledge
- Technology Management isn’t a priority
- Have an emphasis on finding the cheapest upfront printer
- Departments don’t take a proactive stance for ordering supplies

Potential Cost Savings

Administrative costs:

4 IT techs * 2080 annual work hours * 20% of IT's workload = $28,571

1 buyer * 3.5 hours * 6 purchase orders a week * 52 weeks = $14,851

6 vouchers * 2 hours of process time per voucher * 52 weeks = $9,685

Subtotal: $53,107 a year

Product costs:

Toner cost cut by 30% = $76,500

3 purchase orders for printers averaging $1500.00 each (weekly) * 52 weeks = $234,000

Subtotal: $310,500 a year

Estimated to be: <u>$363,607 a year</u>

In Conclusion: